

1 **TITLE IV— NUCLEAR MATTERS**  
2 **Subtitle A—Price-Anderson Act Amendments**

3 **SEC. 401. SHORT TITLE.**

4 This subtitle may be cited as the “Price-Anderson Amendments Act of 2003”.

5 **SEC. 402. EXTENSION OF INDEMNIFICATION AUTHORITY.**

6 (a) INDEMNIFICATION OF NUCLEAR REGULATORY COMMISSION  
7 LICENSEES.—Section 170c. of the Atomic Energy Act of 1954 (42 U.S.C. 2210(c)) is  
8 amended—

9 (1) in the subsection heading, by striking “LICENSES” and inserting “LICENSEES”;

10 (2) by striking “licenses issued between August 30, 1954, and December 31,  
11 2003” and inserting “licenses issued after August 30, 1954”; and

12 (3) by striking “With respect to any production or utilization facility for which a  
13 construction permit is issued between August 30, 1954, and December 31, 2003, the  
14 requirements of this subsection shall apply to any license issued for such facility  
15 subsequent to December 31, 2003.”

16 (b) INDEMNIFICATION OF DEPARTMENT OF ENERGY CONTRACTORS.—Section 170d.(1)(A)  
17 of the Atomic Energy Act of 1954 (42 U.S.C. 2210(d)(1)(A)) is amended by striking “, until  
18 December 31, 2004,”.

19 (c) INDEMNIFICATION OF NONPROFIT EDUCATIONAL INSTITUTIONS.—Section 170k. of the  
20 Atomic Energy Act of 1954 (42 U.S.C. 2210(k)) is amended—

21 (1) by striking “licenses issued between August 30, 1954, and August 1, 2002”  
22 and replacing it with “licenses issued after August 30, 1954”; and

23 (2) by striking “With respect to any production or utilization facility for which a  
24 construction permit is issued between August 30, 1954, and August 1, 2002, the  
25 requirements of this subsection shall apply to any license issued for such facility  
26 subsequent to August 1, 2002.”

27 **SEC. 403. MAXIMUM ASSESSMENT.**

28 Section 170 of the Atomic Energy Act of 1954 (42 U.S.C. 2210) is amended—

29 (1) in the second proviso of the third sentence of subsection b.(1)—

30 (A) by striking “\$63,000,000” and inserting “\$94,000,000”; and

31 (B) by striking “\$10,000,000 in any 1 year” and inserting “\$15,000,000 in  
32 any 1 year (subject to adjustment for inflation under subsection t.)”; and

33 (2) in subsection t.(1)—

34 (A) by inserting “total and annual” after “amount of the maximum”;

35 (B) by striking “the date of the enactment of the Price-Anderson  
36 Amendments Act of 1988” and inserting “July 1, 2003”; and

37 (C) by striking “such date of enactment” and inserting “July 1, 2003”.

38 **SEC. 404. DEPARTMENT OF ENERGY LIABILITY LIMIT.**

39 (a) INDEMNIFICATION OF DEPARTMENT OF ENERGY CONTRACTORS.—Section 170d. of the  
40 Atomic Energy Act of 1954 (42 U.S.C. 2210(d)) is amended by striking paragraph (2) and  
41 inserting the following:

42 “(2) In an agreement of indemnification entered into under paragraph (1), the  
43 Secretary—

44 “(A) may require the contractor to provide and maintain financial

1 protection of such a type and in such amounts as the Secretary shall determine to  
2 be appropriate to cover public liability arising out of or in connection with the  
3 contractual activity; and

4 “(B) shall indemnify the persons indemnified against such liability above  
5 the amount of the financial protection required, in the amount of \$10,000,000,000  
6 (subject to adjustment for inflation under subsection t.), in the aggregate, for all  
7 persons indemnified in connection with the contract and for each nuclear incident,  
8 including such legal costs of the contractor as are approved by the Secretary.”.

9 (b) CONTRACT AMENDMENTS.—Section 170d. of the Atomic Energy Act of 1954 (42  
10 U.S.C. 2210(d)) is further amended by striking paragraph (3) and inserting the following—

11 “(3) All agreements of indemnification under which the Department of Energy (or  
12 its predecessor agencies) may be required to indemnify any person under this section  
13 shall be deemed to be amended, on the date of enactment of the Price-Anderson  
14 Amendments Act of 2003, to reflect the amount of indemnity for public liability and any  
15 applicable financial protection required of the contractor under this subsection.”.

16 (c) LIABILITY LIMIT.—Section 170e.(1)(B) of the Atomic Energy Act of 1954 (42 U.S.C.  
17 2210(e)(1)(B)) is amended by:

18 (1) striking “the maximum amount of financial protection required under  
19 subsection b. or”; and

20 (2) striking “paragraph (3) of subsection d., whichever amount is more” and  
21 inserting “paragraph (2) of subsection d.”.

22 **SEC. 405. INCIDENTS OUTSIDE THE UNITED STATES.**

23 (a) AMOUNT OF INDEMNIFICATION.—Section 170d.(5) of the Atomic Energy Act of 1954  
24 (42 U.S.C. 2210(d)(5)) is amended by striking “\$100,000,000” and inserting “\$500,000,000”.

25 (b) LIABILITY LIMIT.—Section 170e.(4) of the Atomic Energy Act of 1954 (42 U.S.C.  
26 2210(e)(4)) is amended by striking “\$100,000,000” and inserting “\$500,000,000”.

27 **SEC. 406. REPORTS.**

28 Section 170p. of the Atomic Energy Act of 1954 (42 U.S.C. 2210(p)) is amended by  
29 striking “August 1, 1998” and inserting “August 1, 2013”.

30 **SEC. 407. INFLATION ADJUSTMENT.**

31 Section 170t. of the Atomic Energy Act of 1954 (42 U.S.C. 2210(t)) is amended—

32 (1) by redesignating paragraph (2) as paragraph (3); and

33 (2) by adding after paragraph (1) the following:

34 “(2) The Secretary shall adjust the amount of indemnification provided under an  
35 agreement of indemnification under subsection d. not less than once during each 5-year period  
36 following July 1, 2003, in accordance with the aggregate percentage change in the Consumer  
37 Price Index since—

38 “(A) that date, in the case of the first adjustment under this paragraph; or

39 “(B) the previous adjustment under this paragraph.”.

40 **SEC. 408. TREATMENT OF MODULAR REACTORS.**

41 Section 170 b. of the Atomic Energy Act of 1954 (42 U.S.C. 2210(b)) is amended by  
42 adding at the end the following:

43 “(5)(A) For purposes of this section only, the Commission shall consider a combination  
44 of facilities described in subparagraph (B) to be a single facility having a rated capacity of  
45 100,000 electrical kilowatts or more.

46 “(B) A combination of facilities referred to in subparagraph (A) is 2 or more facilities  
47 located at a single site, each of which has a rated capacity of 100,000 electrical kilowatts or more

1 but not more than 300,000 electrical kilowatts, with a combined rated capacity of not more than  
2 1,300,000 electrical kilowatts.”.

3 **SEC. 409. APPLICABILITY.**

4 The amendments made by sections 403, 404, and 405 do not apply to a nuclear incident  
5 that occurs before the date of the enactment of this Act.

6 **SEC. 410. CIVIL PENALTIES.**

7 (a) **REPEAL OF AUTOMATIC REMISSION.**—Section 234Ab.(2) of the Atomic Energy Act of  
8 1954 (42 U.S.C. 2282a(b)(2)) is amended by striking the last sentence.

9 (b) **LIMITATION FOR NOT-FOR-PROFIT INSTITUTIONS.**—Subsection d. of section 234A of  
10 the Atomic Energy Act of 1954 (42 U.S.C. 2282a(d)) is amended to read as follows:

11 “d.(1) Notwithstanding subsection a., in the case of any not-for-profit contractor,  
12 subcontractor, or supplier, the total amount of civil penalties paid under subsection a. may not  
13 exceed the total amount of fees paid within any one-year period (as determined by the  
14 Secretary) under the contract under which the violation occurs.

15 “(2) For purposes of this section, the term “not-for-profit” means that no part of the net  
16 earnings of the contractor, subcontractor, or supplier inures, or may lawfully inure, to the benefit  
17 of any natural person or for-profit artificial person.”.

18 (c) **EFFECTIVE DATE.**—The amendments made by this section shall not apply to any  
19 violation of the Atomic Energy Act of 1954 occurring under a contract entered into before the  
20 date of enactment of this section.

21 **Subtitle B—Deployment of New Nuclear Plants**

22 **SEC. 421. SHORT TITLE.**

23 This subtitle may be cited as the “Nuclear Energy Finance Act of 2003.”

24 **SEC. 422. DEFINITIONS.**

25 For purposes of this subtitle:

26 (a) The term “eligible project costs” means all costs incurred by a project developer that  
27 are reasonably related to the development and construction of a project under this subtitle,  
28 including costs resulting from regulatory or licensing delays.

29 (b) The term “financial assistance” means a line of credit, loan guarantee, purchase  
30 agreement, secured loan, or any combination of the foregoing.

31 (c) The term “line of credit” means an agreement by the Secretary to provide a direct loan  
32 to a project developer at a future date upon the occurrence of certain events designated in the  
33 agreement.

34 (d) The term “loan guarantee” means any guarantee or other pledge by the Secretary to  
35 pay all or part of the principal and interest on a loan or other debt obligation issued by a project  
36 developer and funded by a lender.

37 (e) The term “project” means any commercial nuclear power facility using uranium or  
38 mixed oxide fuel as a source of heat for the production of electricity from a single reactor, or  
39 multiple modular reactors with total electricity generation capacity at or below 1,300,000  
40 kilowatts.

41 (f) The term “project developer” means an individual, corporation, partnership, joint  
42 venture, trust, or other entity that is primarily liable for payment of a project’s eligible costs.

43 (g) The term “purchase agreement” means a contract to purchase the electric energy  
44 produced by a project under this subtitle.

45 (h) The term “Secretary” means the Secretary of Energy.

46 (i) The term “secured loan” means a direct loan or other debt obligation funded by the

Secretary with repayment secured by the value of a project developed under this subtitle.

**SEC. 423. RESPONSIBILITIES OF THE SECRETARY.**

(a) FINANCIAL ASSISTANCE.—The Secretary may, in accordance with this subtitle, make available to project developers for eligible project costs such financial assistance as the Secretary determines is necessary to supplement private-sector financing for new nuclear power plants if he determines that such plants are needed to contribute to energy security, fuel and technology diversity, or clean air attainment goals. The Secretary shall prescribe such terms and conditions for financial assistance as the Secretary deems necessary or appropriate to protect the interests of the United States.

(b) REQUIREMENTS.—Approval criteria for financial assistance shall include:

(1) the creditworthiness of the project;

(2) the extent to which financial assistance would encourage public-private partnerships and attract private-sector investment;

(3) the likelihood that financial assistance would hasten commencement of the project; and,

(4) any other criteria the Secretary deems necessary or appropriate.

(c) LIMITATION.—The total financial assistance per project provided by this subtitle shall not exceed fifty percent of eligible project costs.

(d) CONFIDENTIALITY.—The Secretary shall protect the confidentiality of any information that is certified by a project developer to be commercially sensitive.

(e) FULL FAITH AND CREDIT.—All financial assistance provided by the Secretary under this subtitle shall be general obligations of the United States backed by its full faith and credit.

**SEC. 424. REGULATIONS**

Not later than 12 months from the date of enactment of this Act, the Secretary shall issue regulations to implement this subtitle.

## **Subtitle C—Advanced Reactor Hydrogen Co-Generation Project**

**SEC. 431. PROJECT ESTABLISHMENT.**

The Secretary is directed to establish an Advanced Reactor Hydrogen Co-Generation Project.

**SEC. 432. PROJECT DEFINITION.**

The project shall conduct the research, development, design, construction, and operation of a hydrogen production co-generation system that, relative to the current commercial reactors, enhances safety features, reduces waste production, enhances thermal efficiencies, increases proliferation resistance, and has the potential for improved economics and physical security in reactor siting.

**SEC. 433. PROJECT MANAGEMENT.**

(a) The project shall be managed within the Department by the Office of Nuclear Energy Science and Technology.

(b) The lead laboratory for the program, providing the site for the reactor construction, shall be the Idaho National Engineering and Environmental Laboratory (“INEEL”).

(c) The Secretary shall establish a national steering committee with membership from the national laboratories, universities, and industry to provide advice to the Secretary and the Director of the Office of Nuclear Energy, Science and Technology on technical and program management aspects of the project.

(d) Project activities shall be conducted at INEEL, other national laboratories,

1 universities, domestic industry, and international partners.

2 **SEC. 434. PROJECT REQUIREMENTS**

3 (a) The project shall include planning, research and development, design, and  
4 construction of an advanced, next-generation, nuclear energy system for the co-generation of  
5 electricity and hydrogen.

6 (1) The project shall utilize, where appropriate, extensive reactor test capabilities  
7 resident at INEEL.

8 (2) The project shall be designed to explore technical, environmental, and  
9 economic feasibility of alternative approaches for reactor-based hydrogen production.

10 (3) The industrial lead for the project must be a United States-based company.

11 (b) The Secretary shall seek international cooperation, participation, and financial  
12 contribution in this program.

13 (1) The project may contract for assistance from specialists or facilities from  
14 member countries of the Generation IV International Forum, the Russian Federation, or  
15 other international partners where such specialists or facilities provide access to cost-  
16 effective and relevant skills or test capabilities.

17 (2) International activities shall be coordinated with the Generation IV  
18 International Forum.

19 (3) The Secretary may combine this project with the Generation IV Nuclear  
20 Energy Systems Program.

21 (c) The overall project, which may involve demonstration of selected project objectives  
22 in a partner nation, must demonstrate both electricity and hydrogen production and may provide  
23 flexibility, where technically and economically feasible in the design and construction, to enable  
24 tests of alternative reactor core and cooling configurations.

25 (d) The Secretary shall establish cost-shared partnerships with domestic industry or  
26 international participants for the research, development, design, construction and operation of the  
27 demonstration facility, and preference in determining the final project structure shall be given to  
28 an overall project which retains United States leadership while maximizing cost sharing  
29 opportunities and minimizing federal funding responsibilities.

30 (e) The Secretary shall select technologies and develop the project to provide initial  
31 testing of either hydrogen production or electricity generation by 2010 or provide a report to  
32 Congress why this date is not feasible.

33 (f) The Secretary is authorized to conduct the Advanced Reactor Hydrogen Co-  
34 Generation Project without the constraints of DOE Order 413.3 as deemed necessary to meet the  
35 specified operational date.

36 (g) The Secretary may fund up to two teams for up to one year to develop detailed  
37 proposals for competitive evaluation and selection of a single proposal and concept for further  
38 progress. The Secretary shall define the format of the competitive evaluation of proposals.

39 (h) Research facilities in industry, national laboratories, or universities either within the  
40 United States or with cooperating international partners may be used to develop the enabling  
41 technologies for the demonstration facility. Utilization of domestic university-based testbeds  
42 shall be encouraged to provide educational opportunities for student development.

43 (i) The Secretary shall seek active participation of the Nuclear Regulatory Commission  
44 throughout the project to develop risk-based criteria for any future commercial development of a  
45 similar reactor architecture.

46 (j) A comprehensive project plan shall be developed no later than April 30, 2004. The

1 project plan shall be updated annually with each annual budget submission.

2 **SEC. 435. AUTHORIZATION OF APPROPRIATIONS.**

3 (a) RESEARCH, DEVELOPMENT AND DESIGN PROGRAMS.— The following sums are  
4 authorized to be appropriated to the Secretary for all activities under this subtitle except for  
5 reactor construction:

6 (1) For fiscal year 2004, \$35,000,000;

7 (2) For each of fiscal years 2005-2008, \$150,000,000; and

8 (3) For fiscal years beyond 2008, such funds as are needed are authorized to be  
9 appropriated.

10 (b) REACTOR CONSTRUCTION.—The following sum is authorized to be appropriated to  
11 the Secretary for all project-related construction activities, to be available until expended,  
12 \$500,000,000.

13 **Subtitle D—Miscellaneous Matters**

14 **SEC. 441. EMISSION-FREE CONTROL MEASURES UNDER A STATE IMPLEMENTATION PLAN.**

15 (a) DEFINITIONS.—In this subtitle—

16 (1) The term “criteria air pollutant” means a pollutant listed under section 108(a)  
17 of the Clean Air Act (42 U.S.C. 7408(a)).

18 (2) The term “emission-free electricity source” means—

19 (A) a facility that generates electricity without emitting criteria pollutants  
20 as a result of onsite operations of the facility; and

21 (B) a facility that generates electricity using nuclear fuel that meets all  
22 applicable standards for radiological emissions under section 112 of the Clean Air  
23 Act (42 U.S.C. 7412).

24 (3) The term “hazardous pollutant” has the meaning given the term in section  
25 112(a) of the Clean Air Act (42 U.S.C. 7412(a)).

26 (4) The term “improvement in availability” means an increase in the amount of  
27 electricity produced by an emission-free electricity source that provides, or has the  
28 potential to provide, a commensurate reduction in output from emitting sources.

29 (5) The term “increased emission-free capacity project” means a project to  
30 construct an emission-free electricity source or increase the rated capacity of an existing  
31 emission-free electricity source.

32 (b) TREATMENT OF CERTAIN STATE ACTIONS AS CONTROL MEASURES.—An action taken  
33 by a State to support the continued operation of an emission-free electricity source or to support  
34 an improvement in availability or an increased emission-free capacity project shall be considered  
35 to be a control measure for the purposes of section 110(a) of the Clean Air Act (42 U.S.C.  
36 7410(a)).

37 (c) ECONOMIC INCENTIVE PROGRAMS.—Emissions of criteria air pollutants or hazardous  
38 pollutants prevented or avoided by an improvement in availability or the operation of increased  
39 emission-free capacity shall be eligible for, and may not be excluded from, incentive programs  
40 used as control measures, including programs authorizing emission trades, revolving loan funds,  
41 tax benefits, and special financing programs.

42 **SEC. 442. URANIUM SALES AND TRANSFERS.**

43 Section 3112 of the USEC Privatization Act (42 U.S.C. 2297h-10) is amended by striking  
44 subsections (d) and (e) and inserting the following:

45 “(d)(1)(A) The aggregate annual deliveries of uranium in any form (including natural  
46 uranium concentrates, natural uranium hexafluoride, enriched uranium, and depleted uranium)

1 sold or transferred for commercial nuclear power end uses by the United States Government  
2 shall not exceed 3,000,000 pounds  $U_3O_8$  equivalent per year through calendar year 2009. Such  
3 aggregate annual deliveries shall not exceed 5,000,000 pounds  $U_3O_8$  equivalent per year in  
4 calendar years 2010 and 2011. Such aggregate annual deliveries shall not exceed 7,000,000  
5 pounds  $U_3O_8$  equivalent in calendar year 2012. Such aggregate annual deliveries shall not exceed  
6 10,000,000 pounds  $U_3O_8$  equivalent per year in calendar year 2013 and each year thereafter. Any  
7 sales or transfers by the United States Government to commercial end users shall be limited to  
8 long-term contracts of no less than 3 years duration.

9 “(B) The recovery and extraction of the uranium component from contaminated uranium  
10 bearing materials from United States Government sites by commercial entities shall be the  
11 preferred method of making uranium available under this subsection. The uranium component  
12 contained in such contaminated materials shall be counted against the annual maximum  
13 deliveries set forth in this section, provided that uranium is sold to end users.

14 “(C) Sales or transfers of uranium by the United States Government for the following  
15 purposes are exempt from the provisions of this subsection—

16 “(i) sales or transfers provided for under existing law for use by the Tennessee  
17 Valley Authority in relation to the Department of Energy's high-enriched uranium or  
18 tritium programs;

19 “(ii) sales or transfers to the Department of Energy research reactor sales  
20 program;

21 “(iii) the transfer of up to 3,293 metric tons of uranium to the United States  
22 Enrichment Corporation to replace uranium that the Secretary transferred, prior to  
23 privatization of the United States Enrichment Corporation in July 1998, to the  
24 Corporation on or about June 30, 1993, April 20, 1998, and May 18, 1998, and that does  
25 not meet commercial specifications;

26 “(iv) the sale or transfer of any natural uranium for emergency purposes in the  
27 event of a disruption in supply to end users in the United States;

28 “(v) the sale or transfer of any natural uranium in fulfillment of the United States  
29 Government's obligations to provide security of supply with respect to implementation of  
30 the Russian HEU Agreement; and

31 “(vi) the sale or transfer of any enriched uranium for use in an advanced  
32 commercial nuclear power plant in the United States with nonstandard fuel requirements.

33 “(D) The Secretary may transfer or sell enriched uranium to any person for national  
34 security purposes, as determined by the Secretary.

35 “(2) Except as provided in subsections (b) and (c), and in paragraph (1)(B) and (C) of this  
36 subsection, no sale or transfer of uranium in any form shall be made by the United States  
37 Government unless—

38 “(A) the President determines that the material is not necessary for national  
39 security needs;

40 “(B) the price paid to the Secretary will not be less than the fair market value of  
41 the material, as determined at the time that such material is contracted for sale;

42 “(C) prior to any sale or transfer, the Secretary solicits the written views of the  
43 Department of State and the National Security Council with regard to whether such sale  
44 or transfer would have any adverse effect on national security interests of the United  
45 States, including interests related to the implementation of the Russian HEU Agreement;  
46 and

1           “(D) neither the Department of State nor the National Security Council objects to  
2           such sale or transfer.

3           The Secretary shall endeavor to determine whether a sale or transfer is permitted under this  
4           paragraph within 30 days. The Secretary’s determinations pursuant to this paragraph shall be  
5           made available to interested members of the public prior to authorizing any such sale or transfer.

6           “(3) Within 1 year after the date of enactment of this subsection and annually thereafter  
7           the Secretary shall undertake an assessment for the purpose of reviewing available excess  
8           Government uranium inventories, and determining, consistent with the procedures and  
9           limitations established in this subsection, the level of inventory to be sold or transferred to end  
10          users.

11          “(4) Within 5 years after the date of enactment of this subsection and biennially thereafter  
12          the Secretary shall report to the Congress on the implementation of this subsection. The report  
13          shall include a discussion of all sales or transfers made by the United States Government, the  
14          impact of such sales or transfers on the domestic uranium industry, the spot market uranium  
15          price, and the national security interests of the United States, and any steps taken to remediate  
16          any adverse impacts of such sales or transfers.

17          “(5) For purposes of this subsection, the term ‘United States Government’ does not  
18          include the Tennessee Valley Authority.”.